

JUL-18-2002 08:24 FROM

TO 76#1309022*1299#1703 P.08/17

In the Claims

Please replace the claims with the following clean version of the entire set of pending claims, in accordance with 37 CFR § 1.121(c)(1)(i). Cancel all previous versions of any pending claim.

A marked-up version showing amendments to any claims being changed is provided in one or more accompanying pages separate from this amendment in accordance with 37 CFR § 1.121(c)(1)(ii). Any claim not accompanied by a marked-up version has not been changed relative to the immediate prior version, except that marked-up versions are not being supplied for any added claim or canceled claim.

CLAIMS

38. (Amended) A capacitor comprising a pair of capacitor electrodes having capacitor dielectric material therebetween comprising a composite of two immediately juxtaposed and contacting, yet discrete, layers of the same stoichiometric capacitor dielectric material, both of the discrete layers being crystalline, and comprising an interface where the discrete layers contact which is characterized by a perceptible change in crystallinity from one layer to the other, the perceptible change in crystallinity being characterized by a perceptible lateral shift in grain boundaries from one layer to the other, crystal size in the one and the other layers being substantially the same.

JUL-18-2002 08:24 FROM

TO 76#1309022*1299#1703 P.09/17

~~Cancel claims 39-41, 44 and 45.~~

New Claims

Add new claims 46-54 as follows:

Part C3

3
b

46. (Added) The capacitor of claim 38 constituting an entire capacitor dielectric region between the pair of capacitor electrodes, the entire capacitor dielectric region consisting essentially of the composite of the two immediately juxtaposed and contacting, yet discrete, layers of the same stoichiometric capacitor dielectric material

47. (Added) The capacitor of claim 42 constituting an entire capacitor dielectric region between the pair of capacitor electrodes, the entire capacitor dielectric region consisting essentially of the composite of the two immediately juxtaposed and contacting, yet discrete, layers of the same stoichiometric capacitor dielectric material.

48. (Added) The capacitor of claim 43 constituting an entire capacitor dielectric region between the pair of capacitor electrodes, the entire capacitor dielectric region consisting essentially of the composite of the two immediately juxtaposed and contacting, yet discrete, layers of the same stoichiometric capacitor dielectric material.

Sub A7
5
Cap
Sub A7

49. (Added) The capacitor of claim 38 wherein at least one of the electrodes predominately comprises a material selected from the group consisting of TiN_x , WN_x , TaN_x , $PtRh_x$, $PtRu_x$, $PtIr_x$, and mixtures thereof.

Sub A7
50. (Added) The capacitor of claim 49 constituting an entire capacitor dielectric region between the pair of capacitor electrodes, the entire capacitor dielectric region consisting essentially of the composite of the two immediately juxtaposed and contacting, yet discrete, layers of the same stoichiometric capacitor dielectric material.

51. (Added) The capacitor of claim 38 wherein the one layer has a thickness of from 10% to 90% of a combined thickness of the first and second layers.

Sub A7

52. (Added) The capacitor of claim 51 constituting an entire capacitor dielectric region between the pair of capacitor electrodes, the entire capacitor dielectric region consisting essentially of the composite of the two immediately juxtaposed and contacting, yet discrete, layers of the same stoichiometric capacitor dielectric material.

*3
b
C*

53. (Added) The capacitor of claim 51 wherein at least one of the electrodes predominately comprises a material selected from the group consisting of TiN_x , WN_x , TaN_x , $PtRh_x$, $PtRu_x$, $PtIr_x$ and mixtures thereof.

54. (Added) The capacitor of claim 38 constituting an entire capacitor dielectric region between the pair of capacitor electrodes, the entire capacitor dielectric region consisting essentially of the composite of the two immediately juxtaposed and contacting, yet discrete, layers of the same stoichiometric capacitor dielectric material;

wherein at least one of the electrodes predominately comprises a material selected from the group consisting of TiN_x , WN_x , TaN_x , $PtRh_x$, $PtRu_x$, $PtIr_x$ and mixtures thereof, and

wherein the one layer has a thickness of from 10% to 90% of a combined thickness of the first and second layers.